

REMARKS

In response to the Office Action dated 3 July 2002, claims 1-16 have been amended to clarify the language of the claims. The Applicants respectfully assert that the amendments thereto have not narrowed the scope of the claims but merely brought the claims into compliance with standard US patent practice. Claims 1-16 are currently pending in the application. No new matter has been added. Reconsideration of the claims is respectfully requested.

On page 1 of the Office Action, the abstract was objected to for being more than 150 words in length and not being clear and concise.

The Applicants respectfully traverse the objection, but have amended the abstract in order to advance prosecution in the application.

On page 1 of the Office Action, claims 15 and 16 were objected to under 37 C.F.R. §1.75(c) as being improper multiple dependent claims. Further, according to the Office Action, claims 15 and 16 have not been examined on the merits thereof.

The Applicants respectfully traverse the objections, but have amended the claims in order to advance prosecution of the application. The Applicants respectfully request that claims 15 and 16 be immediately examined on the merits thereof.

On page 3 of the Office Action, claims 1-3, 6, 8-10 and 13 were rejected under 35 U.S.C. §102(e) as being anticipated by Ranta. According to the Office Action, Ranta identically discloses all the limitations set forth in the Applicants' claimed invention.

On page 4 of the Office Action, claims 4, 5, 7, 11, 12 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ranta in view of Hakaste. According to

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the Office Action, Ranta discloses all the limitations of Applicants' claimed invention except for the method and apparatus being associated with a base station subsystem or a switching center. However, according to the Office Action Hakaste discloses the limitations and that it would be obvious to combine the disclosures of Ranta and Hakaste to arrive at the Applicants' claimed invention.

The Applicants respectfully traverse these rejections. The Applicants respectfully submit that the cited references do not disclose, teach or suggest the Applicants' invention as set forth in claims 1, 8 and 15. The Applicant respectfully submits that there are patentable differences between the cited references and the Applicants' claimed invention. The Applicants' invention differs from the cited references for at least the following reasons.

The Applicants set forth, in independent claim 1, a device for measuring usage of system resources in a communication network. The device includes means for measuring which radio resources are used by a transmission in a system; means for measuring which data service units are used for transmission in the system; and means for measuring which transmission characteristics are used by transmission in the system. All of the means for measuring are adapted for performing respective collective measurement.

Significant advantages are obtained through application of the Applicants' claimed arrangement for assessing a collective measurement on the usage of system resources in a communication network, including radio resources, data service units and transmission characteristics of the transmissions thereof at the mobile services

switching center and dimensioning system resources on the basis of the collective assessment of usage of system resources in the communication network.

In contrast to the Applicants' claimed invention, Ranta merely discloses executing measurements by mobile stations of signal strength and timing differences of base stations and that the measurements are derivable from a same set of measurement data. Ranta is different than the Applicants' claimed invention because Ranta merely discloses executing measurements derivable from a set of measurement data of signal strength and timing differences of base stations by mobile stations whereas the Applicants' claimed invention sets forth an arrangement for assessing a collective measurement on the usage of system resources in a communication network, including radio resources, data service units and transmission characteristics of the transmissions thereof at the mobile services switching center and dimensioning system resources on the basis of the collective assessment of usage of system resources in the communication network.

Hakaste fails to remedy the deficiencies of Ranta. Hakaste, even if combined with Ranta, is different than Applicants' claimed invention because the combination merely discloses accommodating mobile stations and wireless communications systems with varying modulation capabilities, such as, selectively providing symmetrical or asymmetrical data services, different modulation types and bit rates in the uplink or downlink direction whereas the Applicants' claimed invention sets forth an arrangement for assessing a collective measurement on the usage of system resources in a communication network, including radio resources, data service units and transmission characteristics of the transmissions thereof at the mobile services

switching center and dimensioning system resources on the basis of the collective assessment of usage of system resources in the communication network.

Because claims 2-7, 9-14 and 16 depend, directly or indirectly, from independent claims 1, 8 and 15, respectively and include the features set forth in the independent claims, as well as additional features, the Applicant respectfully submits that claims 2-7, 9-14 and 16 are also patentably distinct over the cited references. Nevertheless, the Applicants are not conceding the correctness of the Office Action's position regarding such dependent claims and reserves the right to make additional arguments, if necessary.

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CONCLUSION

In view of the amendments and reasons provided above, it is believed that all pending claims are in condition for allowance. The amendments clarify the patentable invention without adding new subject matter. Applicant respectfully requests favorable reconsideration and early allowance of all pending claims.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's agent, Michael T. Wallace at 952-253-4127.

Respectfully submitted,

Altera Law Group, LLC



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APPENDIX A
MARKED UP AMENDMENTS TO THE ABSTRACT AND THE CLAIMS

Please amend the abstract as follows.

[The present invention proposes a device] Disclosed herein is a method and apparatus for measuring [a] usage of system resources in a communication network, [, said device comprising] The apparatus includes [means] devices for measuring [which] radio resources, [are used by a transmission in a system; means for measuring which] data service units and transmission characteristics [are used for said transmission in a] in the system. [; and means for measuring which transmission characteristics are used by said transmission in a system, wherein all of said] The [means] devices for measuring are adapted for performing a respective collective measurement. [, and a] The method [for measuring a usage of system resources in a communication network, said method comprising the step of] includes collectively measuring transmission parameters [of circumstances of a transmission in a system, said parameters being at least] including radio resources, [used by said transmission in a system,] data service units [used for said transmission in a system,] and transmission characteristics [used by said transmission in a system, wherein said measuring is carried out collectively. According to the present invention, it is possible to provide a]

The method provides for dimensioning system resources according to [for a usage by] transmission [s in a communication] demand in the network. [with this device and method for measuring the usage of system resources in a communication network.

Fig. 1]

Please amend the claims as follows.

- 1 1. (Amended) A device for measuring [a] usage of system resources in a
2 communication network, [said] the device comprising:
3 means for measuring which radio resources are used by a transmission in a
4 system;
5 means for measuring which data service units are used for [said] transmission
6 in [a] the system; and
7 means for measuring which transmission characteristics are used by [said]
8 transmission in [a] the system, wherein all of [said] the means for measuring are
9 adapted for performing [a] respective collective measurement.
- 1 2. (Amended) [A] The device according to claim 1, wherein said transmission
2 characteristics comprise an information transfer capability information.
- 1 3. (Amended) [A] The device according to claim 1, further comprising
2 [evaluation] means for evaluating, detecting and identifying [each] respective
3 dependencies of said system resource usage by evaluating measurement results of
4 said [three] means for measuring [means].
- 1 4. Amended) [A] The device according to claim 1, wherein said device is part
2 of a switching center of said communication network.
- 1 5. (Amended) [A] The device according to claim 1, wherein said device is part
2 of a base-station subsystem of said communication network.

1 6. (Amended) [A] The device according to claim 1, wherein said transmission
2 contains high speed circuit switched data.

1 7. (Amended) [A] The device according to claim 1, wherein said transmission
2 contains data which is channel coded according to Enhanced Data rates for GSM
3 Evolution.

1 8. (Amended) A method for measuring a usage of system resources in a
2 communication network, [said] the method comprising [the step of] measuring
3 parameters of circumstances of a transmission in a system, said parameters being at
4 least radio resources used by said transmission in a system, data service units used
5 for said transmission in a system, and transmission characteristics used by said
6 transmission in a system, wherein said measuring is carried out collectively.

1 9. (Amended) [A] The method according to claim 8, wherein said
2 transmission characteristics comprise an information transfer capability information.

1 10. (Amended) [A] The method according to claim 8, further comprising [the
2 step of] detecting and identifying [each] respective dependencies of [said] system
3 resource usage.

1 11. (Amended) [A] The method according to claim 8, wherein said
2 measurements are carried out in a switching center of said communication network.

1 12. (Amended) [A] The method according to claim 8, wherein said
2 measurements are carried out in a base-station subsystem of said communication
3 network.

1 13. (Amended) [A] The method according to claim 8, wherein said
2 transmission contains high speed circuit switched data.

1 14. (Amended) [A] The method according to claim 8, wherein said
2 transmission contains data which is channel coded according to Enhanced Data rates
3 for GSM Evolution.

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1 15. (Amended) A method for dimensioning system resources for a usage by
2 transmissions in a system, [said] the method comprising: [the steps of]
3 determining circumstances of [said] transmissions as well as changes in
4 circumstances of transmissions in a system [, wherein said determination is based on
5 results of one of the methods according to claims 8 and 10, respectively, and wherein
6 in said determination step also changes of said circumstances during said
7 transmissions are determined] ;
8 calculating separately for each transmission circumstance an intensity of data
9 traffic in a communication network from reservation times of [said] data service units
10 used by [said] transmissions and from release times of [said] transmissions; [,]
11 considering [also] a change of a radio channel configuration [therein] by
12 updating [said] the calculation [, wherein said calculation step is] performed
13 separately for each [of said] transmission circumstance [s of said transmissions];
14 determining [each dependence] dependencies based upon [present between
15 said] results of [said] measurements, [said] determinations [steps] and [said]
16 calculations [steps];
17 generating statistics based upon [including said] results of [said]
18 measurements [steps], [said] determinations [steps] and [said] calculations
19 [steps]; and
20 processing [said] generated statistics for dimensioning [said] system
21 resources for [said] usage by [said] transmissions in [a] the system.

1 16. (Amended) [A] The method according to claim 15, wherein [said]
2 calculations [step is] are performed separately for each parameter corresponding to
3 transmission circumstances as well as to a change of transmission circumstances [of
4 said circumstances of said transmissions].

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